

CLAIMS

1. A highly water pressure-resistant polyester nonwoven fabric composed of a laminated nonwoven fabric structure, wherein an extremely fine fiber nonwoven fabric layer composed of a polyester resin material that is mixed with 1% by weight or more of a polyolefin resin and having a fiber diameter of 5 μm or less, and a filamentary fiber nonwoven fabric layer mainly containing a polyester resin and having a fiber diameter of 7 μm or more are integrated by thermocompressive bonding, and the laminated structure has a water pressure-resistance of 2 kPa or more.

2. The highly water pressure-resistant polyester nonwoven fabric according to claim 1, wherein the laminated nonwoven fabric structure has a polyester resin content of 70% by weight or more.

3. The highly water pressure-resistant polyester nonwoven fabric according to claim 1 or 2, wherein a discontinuous phase of the polyolefin resin is scattered in the surface of the extremely fine fibers forming the extremely fine fiber nonwoven fabric.

4. The highly water pressure-resistant polyester nonwoven fabric according to any one of claims 1 to 3, wherein the filamentary fibers forming the filamentary fiber nonwoven fabric are composed of a polyester resin containing 7% by weight or less of a polyolefin resin.

5. The highly water pressure-resistant polyester nonwoven fabric according to any one of claims 1 to 4, wherein the basis of weight of the laminated structure is 10 g/m^2 or more, the basis of weight of the filamentary fiber nonwoven fabric layer is 8 g/m^2 or more, the basis of weight of the extremely fine fiber nonwoven fabric layer is 2 g/m^2 or more, and the laminated structure has a tensile tenacity of 13 N/3 cm or more.

6. The highly water pressure-resistant polyester nonwoven fabric according to any one of claims 1 to 4,

wherein the basis of weight of the filamentary fiber nonwoven fabric layer is 20 g/m² or more, the basis of weight of the extremely fine fiber nonwoven fabric layer is 6 g/m² or more, the basis of weight of the nonwoven fabric laminated structure is 40 g/m² or more, and the nonwoven fabric laminated structure has a tensile tenacity of 60 N/3 cm or more and a water pressure resistance of 3 kPa or more.

7. The highly water pressure-resistant polyester nonwoven fabric according to any one of claims 1 to 6, wherein the extremely fine fiber nonwoven fabric layer is formed out of extremely fine fibers composed of a polyester resin material that contains from 5 to 75% by weight of a polyolefin resin.

8. The highly water pressure-resistant polyester nonwoven fabric according to any one of claims 1 to 6, wherein the extremely fine fiber nonwoven fabric is formed out of extremely fine fibers composed of a polyester resin material that contains from 10 to 50% by weight of a polyolefin resin.

9. The highly water pressure-resistant polyester nonwoven fabric according to any one of claims 1 to 8, wherein the extremely fine fibers forming the extremely fine fiber nonwoven fabric is formed out of a polyester resin having a solution viscosity from 0.2 to 0.8 η_{sp}/C .

10. The highly water pressure-resistant polyester nonwoven fabric according to any one of claims 1 to 8, wherein the extremely fine fibers forming the extremely fine fiber nonwoven fabric is formed out of a polyester resin having a solution viscosity from 0.2 to 0.6 η_{sp}/C .

11. The highly water pressure-resistant nonwoven fabric according to any one of claims 1 to 10, wherein the polyolefin to be contained in the polyester resin forming the extremely fine fibers has a MFR of 20 g/10 min or more.

12. The highly water pressure-resistant nonwoven

fabric according to any one of claims 1 to 10, wherein the polyolefin to be contained in the polyester resin forming the extremely fine fibers has a MFR of 100 g/10 min or more.

5 13. The highly water pressure-resistant nonwoven fabric according to any one of claims 1 to 10, wherein the polyolefin to be contained in the polyester resin forming the extremely fine fibers has a MFR of 500 g/10 min or more.

10 14. The highly water pressure-resistant nonwoven fabric according to any one of claims 1 to 13, wherein the polyolefin resin to be contained in the polyester resin forming the extremely fine fibers is a polypropylene or a polyethylene.

15 15. The highly water pressure-resistant nonwoven fabric according to any one of claims 1 to 14, wherein the extremely fine fiber nonwoven fabric layer shows a starting level of wetting and impregnating of 50 mN/m or less when a reagent having a surface tension different from the extremely fine fiber nonwoven fabric layer is
20 dropped thereon.

 16. The highly water pressure-resistant polyester nonwoven fabric according to any one of claims 1 to 15, wherein the nonwoven fabric is formed out of an extremely
25 fine fiber nonwoven fabric layer composed of extremely fine fibers that are obtained by extruding a polyester resin containing a polyolefin resin and melt blowing the extruded resin.

 17. The highly water pressure-resistant polyester nonwoven fabric according to claim 16, wherein the polyester nonwoven fabric is composed of a laminated structure formed by integrating, through
30 thermoccompressive bonding, a stacked structure that is formed by successively stacking at least one filamentary fiber nonwoven fabric layer spun and deposited on a
35 conveyor net, at least one extremely fine fiber nonwoven fabric layer to be deposited on the same conveyor net and

at least one filamentary fiber nonwoven fabric layer spun and deposited thereon.